

# LAKE HARTWELL FISH...



**CATCHING, CLEANING, & COOKING**

**1998 Fishing Season**

**NOTICE**

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC) AND GEORGIA DEPARTMENT OF NATURAL RESOURCES (GA DNR) HAVE PREPARED THIS BROCHURE TO MAKE YOU AWARE OF THE CURRENT FISH CONSUMPTION ADVISORIES FOR THE SOUTH CAROLINA AND GEORGIA WATERS OF LAKE HARTWELL. FURTHER, THE INFORMATION IN THIS BROCHURE IS INTENDED TO HELP YOU MAKE INFORMED DECISIONS ABOUT THE FISH YOU CATCH AND EAT FROM THE LAKE.

**Fish Advisory for Lake Hartwell**

THE SCDHEC POSTED A FISH CONSUMPTION ADVISORY FOR THE SOUTH CAROLINA WATERS OF LAKE HARTWELL BEGINNING IN 1976, BECAUSE FISH CAUGHT IN THE LAKE COULD CONTAIN PCBS OR POLYCHLORINATED BIPHENYLS. THE GA DNR FOLLOWED LATER WITH THEIR OWN ADVISORY FOR THE GEORGIA WATERS OF LAKE HARTWELL. THESE ADVISORIES HAVE BEEN MODIFIED SEVERAL TIMES, AND REMAIN IN EFFECT.

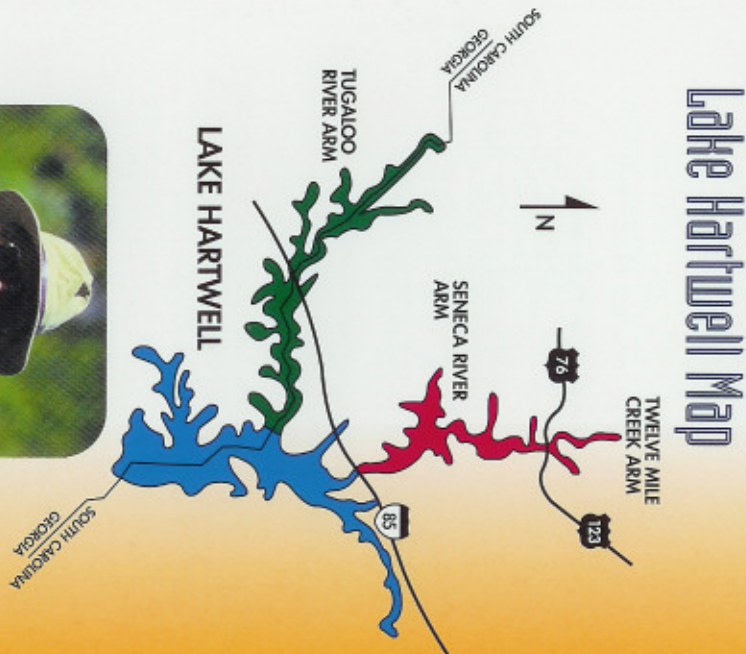


## SUMMARY OF LAKE HARTWELL FISH CONSUMPTION ADVISORY

TWELVE MILE CREEK ARM AND SENECA RIVER ARM OF LAKE HARTWELL	FISH SPECIES	TUGALOO RIVER ARM OF LAKE HARTWELL			REMAINING WATERS OF LAKE HARTWELL
		LESS THAN 12 INCHES	12 - 16 INCHES	OVER 16 INCHES	
<b>DO NOT EAT ANY FISH!!</b>	Hybrid Bass	No Restrictions	No Restrictions	1 meal/month	Do Not Eat
	Largemouth Bass	*	1 meal/week	1 meal/week	1 meal/month
	Channel Catfish	No Restrictions	1 meal/week	1 meal/month	1 meal/month
	Black Crappie	No Restrictions	*	*	*
	Striped Bass	No Restrictions	*	Do Not Eat	*

\* Limited data for these fish species; please call the state agencies at the end of this brochure for meal advice.

<sup>1</sup> One meal is one-half pound (8 oz.) or less of fish, eaten at one sitting.



## WHAT ARE PCBs?

PCBs are chemicals that have no color and odor, and were widely used in electrical equipment and other industrial applications. Exposure to certain doses of PCBs could contribute to a variety of health problems. The use of PCBs was banned by EPA in 1978. The PCBs in Lake Hartwell were released by a manufacturing plant near Twelve Mile Creek.

## WHAT LEVELS ARE CONSIDERED SAFE?

South Carolina and Georgia have fish advisories concerning consumption of certain sport-caught fish in Lake Hartwell. These advisories recommend the maximum amount and type of fish from Lake Hartwell you should eat.

## HOW LONG WILL PCBs REMAIN IN LAKE HARTWELL FISH?

PCBs in Lake Hartwell fish came from the sediment (mud) at the bottom of the lake. Since the sources of these PCBs have been eliminated, the sediments entering the lake are no longer contaminated. This new, clean sediment is burying the old, contaminated sediment. However, it takes a long time for PCBs to become permanently buried.



PCBs tend to build up over time in the fat and tissues of fish. Older, larger fish tend to have more PCBs. PCBs may remain in these fish for many years.

## Catching

By making informed decisions about the fish you catch and eat, you can reduce potential health risks. The following considerations should help you decide whether to release or eat the fish you catch.

## WHERE DID YOU CATCH THE FISH?

Fish caught in the Twelve Mile Creek and Upper Seneca River Arms of Lake Hartwell, have the highest levels of PCBs. Sediments in those areas also have the highest levels of PCBs. The SCDHEC has issued an advisory recommending that you do not eat any fish caught in these water bodies. The GA DNR has issued a separate advisory recommending similar restrictions on eating fish from the Tugaloo River Arm of the lake.

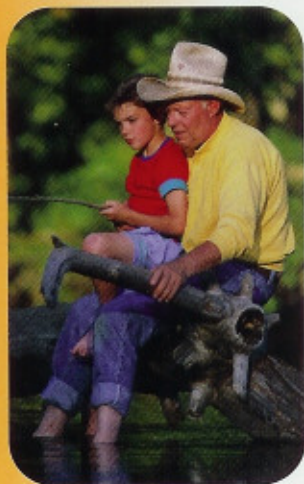
Fish in the remaining waters of Lake Hartwell are less contaminated, so the South Carolina advisory recommends that you limit the types and amounts of fish you eat. The two states' advisories are summarized in the Map and Tables in this brochure.



## WHAT TYPE OF FISH DID YOU CATCH?

Contaminant levels tend to be higher in fattier fish and those higher up in the food chain. For example, predatory species (fish that eat other fish) often have higher contaminant levels. Certain fish that feed on or near the bottom (like catfish) may also accumulate contaminants that are concentrated in sediments.

Striped bass, hybrid bass, and largemouth bass may accumulate more contaminants than some other fish species because they prey on fatty forage fish like gizzard shad, which in turn have accumulated PCBs.



In Lake Hartwell, fish that spend their entire lives in the Twelve Mile Creek and Upper Seneca River Arms, (like largemouth bass and catfish) may have higher levels of PCBs than the same species of fish caught in other areas of the lake. Large migratory

gamefish like striped bass and hybrid bass will spend part of their lives feeding in these arms of the lake, so they also may accumulate PCBs.

In addition to their advisory not to eat any fish caught in the Twelve Mile Creek and Upper Seneca River Arms, the SCDHEC recommends that you limit the types of fish you eat from the remaining waters of Lake Hartwell. These

limitations apply to largemouth bass, hybrid bass, and channel catfish, as described in the Table in this brochure.

The GA DNR has issued an advisory that recommends limiting the types and amounts of fish you eat in the Tugaloo River Arm of Lake Hartwell. There are no limitations on eating crappie, but you should limit eating largemouth bass, striped bass, hybrid bass, and channel catfish depending on the size of the fish, as described in the Table in this brochure.

## WHAT SIZE FISH DID YOU CATCH?

PCBs accumulate in fish over time. Older, larger fish are more likely to have higher levels of PCBs. If you consistently pursue and catch large trophy fish, be aware that they may have ingested more contaminants. Releasing some larger fish and selecting smaller fish of legal size for the dinner table may be preferable.

## Cleaning

### TRIMMING TECHNIQUES TO REDUCE CONTAMINANTS IN FISH

Certain trimming methods can reduce the amount of fat-soluble chemicals like PCBs that may be present in the parts of fish that are eaten (usually fillets). The amount removed varies from one type of fish to another.

Most chemical contaminants are likely to be concentrated in the internal organs of the fish, especially the liver. You should not eat the internal organs of fish from potentially



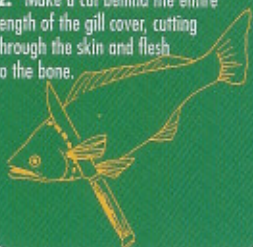
contaminated waters, and fish should be carefully handled and gutted to prevent these organs from contaminating the remaining fillet.

Fat-soluble chemicals such as PCBs are likely to be found in parts of the fish that are high in fat, such as along the back (dorsal area) and the lateral lines, in the belly area, and in a thin fatty layer just under the skin.

1. Make a shallow cut through the skin (on either side of the dorsal fin) from the top of the head to the tail.



2. Make a cut behind the entire length of the gill cover, cutting through the skin and flesh to the bone.



3. Make a cut along the belly from the base of the pectoral fin to the tail. This cut is made on both sides of the anus and the fin directly behind it. Do not cut into the gut cavity.



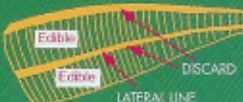
4. Grasp the skin at the base of the head with pliers, pull toward the tail, removing both the skin and belly meat. If belly meat does not come off with the skin, trim it off. Discard this trimmed material along with the skin.



5. Remove the fillet and repeat Steps 2 through 5 for the other side.



6. Trim the two fillets as follows:  
A. Remove 1/2" strip from the top of the fillet and discard.  
B. Remove 1/2" strip (1/4" from each side of the lateral line) along the entire length of the fillet and discard.



Trimming away these fatty areas can remove a significant amount of the fat-soluble contaminants stored there (more than 50% in bass). Typically, these fatty areas can be easily identified because they are darker in color than the leaner parts of the muscle or fillet meat around them.

## Cooking

### COOKING FISH TO REDUCE CONTAMINANTS

While cooking fish does not destroy PCBs that may be present, the heat from cooking does melt the fat in the fish, thereby removing some of these contaminants.

The best way to melt away the fat and help reduce contaminants is to broil, bake or grill trimmed and skinned fish on an elevated rack so that the melting fat drips away from the fillet.

Deep-frying is not advisable for trying to reduce contaminants. Studies show that smoking fish does not reduce PCB levels.

Avoid using the drippings from cooked fish for sauces. Also, if you boil or poach your fish discard the fish broth.





## For more information

If you have any questions or comments about the information in this brochure, call the United States Environmental Protection Agency at 1-800-435-9233.

For more information about the South Carolina Fish Advisory, call the South Carolina Department of Health and Environmental Control at 1-888-849-7241.

For more information about the Georgia Fish Advisory, call the Georgia Department of Natural Resources, Environmental Protection Division, at 1-404-656-4713, or 1-706-369-6376.

For more information about Lake Hartwell, call the United States Army Corps of Engineers at 1-888-893-0678.

**Please complete the Survey shown below. Detach at perfs and return.**

*Thank you for taking the time to answer these questions.*

### LAKE HARTWELL FISH CONSUMPTION ADVISORY SURVEY

*The purpose of this brochure is to give you information about the fish consumption advisories for the waters of Lake Hartwell and safer ways to clean and cook fish. We would like your help by answering the following questions.*

- How much of the information in the brochure was new to you?  
☐ Most of it    ☐ Some of it    ☐ None
- After reading this brochure, are you aware of the fish advisories for the waters of Lake Hartwell?  
☐ Yes    ☐ No
- Do you understand the health risks of eating fish from the waters of Lake Hartwell?  
☐ Yes    ☐ No
- Will you share this brochure with a friend or family member?  
☐ Yes    ☐ No
- Do you now understand that you should not eat fish caught in the Twelve Mile Creek and Seneca River Arms of Lake Hartwell?  
☐ Yes    ☐ No
- Do you understand how to trim fatty areas from the fish to reduce chemicals in the fish?  
☐ Yes    ☐ No
- Did you have any problems understanding the information in this brochure?  
☐ Yes    ☐ No